

CITY OF COLUMBUS

950 Maple Ave.
P.O. Box 228
Columbus, WI 53925-0228
(920) 623-5912
FAX (920) 623-5923

Water & Light Department

January 30, 2001

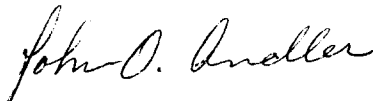
Jim Loock, Chief Electric Engineer
Public Service Commission
610 N. Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

RE: In the Matter of Filing Plans for Appropriate Inspection and
Maintenance, PSC Rule 113.0607.

Dear Mr. Loock:

Enclosed for filing are 3 copies of Columbus Water & Light's Preventative Maintenance Plan detailing inspection maintenance schedules, condition rating criteria, corrective action schedules, record keeping procedures and report filing schedules as documented in this rule.

Very truly yours,



John O. Andler
Superintendent

Enclosures

RECEIVED

JAN 31 2001

Electric Division

PREVENTATIVE MAINTENANCE PLAN

COLUMBUS WATER & LIGHT

FILING DEADLINE

FEBRUARY 1, 2001

January 30, 2001

John O. Andler

950 Maple Avenue

Columbus, WI 53925

920-623-5912

jandler@wppisys.org

RECEIVED

JAN 31 2001

Electric Division

This plan was prepared by the MEUW work group for PSC Rule 113.0607 for use by the 82 municipal electric utilities in Wisconsin and endorsed by PSC staff as meeting the requirements of Rule PSC 113.0607.

TABLE OF CONTENTS

	Page
I. Preventative Maintenance Plan	2
II. Inspection Schedule and Methods	2
III. Condition Rating Criteria	3
IV. Corrective Action Schedule	4
V. Record Keeping	4
VI. Reporting Requirements	4
VII. Distribution – overhead inspection guide	5
VIII. Distribution – underground inspection guide	8
IX. Substation - Monthly inspection guide	10
X. Substation – Annual Inspection Guide	16

FORMS

OVERHEAD DISTRIBUTION INSPECTION FORM	7
UNDERGROUND DISTRIBUTION INSPECTION FORM	9
MONTHLY SUBSTATION INSPECTION FORM	12 – 15
ANNUAL SUBSTATION INSPECTION FORM	17

I. Preventative Maintenance Plan

The PSC 113.0607 rule reads;

Appropriate inspection and maintenance: system reliability.

(1) PREVENTATIVE MAINTENANCE PLAN. Each utility or other person subject to this chapter, including persons who own electric generating facilities in this state who provide service to utilities with contracts of five years or more, shall develop and have in place its own preventative maintenance plan. This section is applicable to electric generating facilities as set forth at s. 194.491(5)(a)(1), Stats. Each plan shall include, among other things, appropriate inspection, maintenance and replacement cycles where applicable for overhead and underground distribution plant, transmission, generation¹, and substation facilities.

(2) CONTENTS OF THE PLAN. (a) *Performance standard.* The Preventative Maintenance Plan shall be designed to ensure high quality, safe, and reliable service, considering: cost, geography, weather, applicable codes, national electric industry practices, sound engineering judgment and experience.

1 *PSC staff interpretation is that generation applies to individual generators equal to or greater than 50 MW.*

II. Inspection Schedule and Methods:

The purpose of this plan is to maintain or improve the electrical system reliability with the objective of increased municipal loyalty and satisfaction from our constituents. The goals are to meet and exceed the schedules established in this plan.

Exception reporting (inspected equipment not in good condition) will be the method of documentation on all inspection forms.

The scope of this plan is traditional and uses proven maintenance techniques. Unique operating and maintenance philosophies have not been considered. Also, manufacturer defects will be dealt with as they are communicated to this utility.

SCHEDULE:	MONTHLY	ANNUAL	EVERY 5 YEARS
Transmission (69Kv and above)		X	X
Substations	X	X	
Distribution (OH & UG)			X

The inspection of Distribution facilities will be by individual substation circuits on a 5-year cycle such that the entire system will be inspected every 5 years. Inspector instructions for inspecting all facilities and forms are included with the plan.

METHODS: Five criteria groups will be used to complete the inspection of all facilities.

1. IR – infrared thermography used to find poor electrical connections and/or oil flow problems in equipment.
2. RFI - Radio Frequency Interference, a byproduct of loose hardware and connections, is checked using an AM radio receiver.
3. SI – structural integrity of all supporting hardware including poles, crossarms, insulators, structures, bases, foundations, buildings, etc.
4. Clearance – refers to proper spacing of conductors from objects, trees and other utility cables.
5. EC – equipment condition on non-structural components such as circuit breakers, transformers, regulators, reclosers, relays, batteries, capacitors, etc.

III. Condition Rating Criteria:

This criterion, as listed below, establishes the condition of a facility and also determines the repair schedule to correct deficiencies.

- 0) Good condition
- 1) Good condition but aging
- 2) Non-critical maintenance required – normally repair within 12 months
- 3) Priority maintenance required – normally repair within 90 days
- 4) Urgent maintenance required – report immediately to the utility and repair normally within 1 week

IV. Corrective Action Schedule

The rating criteria as listed above determine the corrective action schedule.

V. Record Keeping

All inspection forms and records will be retained for a minimum of 10 years. The inspection form contains all of the required critical information i.e. inspection dates, condition rating, schedule for repair and date of repair completion.

VI. Reporting Requirements

A report and summary of this plan's progress will be submitted every two years with the first report due to the Commission by February 1, 2003. The report will consist of a letter documenting the percent of inspections achieved compared to the schedule and a description of maintenance achieved within the scheduled time allowance.

VII DISTRIBUTION – OVERHEAD INSPECTION GUIDE

STRUCTURE

- Pole Condition
- Pole Leaning
- Crossarm Condition
- Insulators, Deadend, Pin
- Excess Fill or Soil Removal
- Pole Steps
- Grounds Intact
- Ground Molding
- Down Guys
- Guy Markers
- Guy Bonding/Insulator
- Signage - Location Number, Warning Sign
- Customer Equipment
- Conductor
- Tie Wires
- U Guard/Conduit Condition

EQUIPMENT

- Transformers
 - ✓ Oil Leaks
 - ✓ Bushing Condition
 - ✓ Grounding/Bonding
- Capacitors
 - ✓ Fuses Blown
 - ✓ Bushing Condition
 - ✓ Oil Leaks
 - ✓ Tank Bulged
 - ✓ Switches, Oil, Vacuum
 - ✓ Control Conduit/Wiring
 - ✓ Grounding/Bonding
- Switches - GOAB, Inline, Disconnect
 - ✓ Insulator Condition
 - ✓ Operating Handle/Locks
 - ✓ Linkage
 - ✓ Grounding/Bonding
 - ✓ Switch Number
- Cutouts
 - ✓ Insulator Condition
 - ✓ Fuse Size Tag

VII DISTRIBUTION – OVERHEAD INSPECTION GUIDE (con't)

EQUIPMENT (CON'T)

- Arrestor
 - ✓ Insulator Condition
 - ✓ Connections
 - ✓ Ground Lead Connection
- Cable Terminators
 - ✓ Insulator Condition
 - ✓ Grounding/Bonding

CLEARANCES

- Ground Line
- Buildings, Bridges, Swimming Pool, Etc.
- Communications Facilities
- Fuel Tanks
- Other Electric Utilities
- Transmission Lines
- Over Streets, Roads, Alleys, Highways
- Tree Trimming
 - ✓ Clearance From Line
 - ✓ Vines on Poles
 - ✓ Danger Trees

INFRARED SCAN

- Main Three-Phase Feeders
- Priority Overhead Transformer Banks
 - ✓ Bushing Connectors Primary
 - ✓ Bushing Connectors Secondary
 - ✓ General Tank Heating
- Current & Voltage Transformers if Applicable

RFI CHECK

- OH system with AM radio as each circuit is inspected

OVERHEAD DISTRIBUTION INSPECTION FORM

Ckt _____

[illegible]

VIII DISTRIBUTION – UNDERGROUND INSPECTION GUIDE

STRUCTURAL (Exterior & Interior) Transformer, Primary Pedestal, Secondary Pedestal, Switchgear.

- Enclosure Condition
- Level/Leaning
- Security
- Grade/Accessibility (Shrubs, Customer Facilities, Fill/Excavation)
- Numbering
- Voids/Gaps
- Signage - Location Number, Warning Sign
- Pad/Vault Condition

EQUIPMENT

- Transformers
 - ✓ Oil Leaks
 - ✓ Bushing Condition
 - ✓ Grounding/Bonding
 - ✓ Elbows
 - ✓ Arrestors
 - ✓ Feed-Through
 - ✓ Cable Condition
 - ✓ Secondary Connections
- Primary Pedestals
 - ✓ Elbows
 - ✓ Junction Condition
 - ✓ Grounding/Bonding
- Secondary Pedestals
 - ✓ Secondary Connections
- Switches – URD Switchgear
 - ✓ Insulator Condition
 - ✓ Operating Handle Security
 - ✓ Linkage
 - ✓ Grounding/Bonding
 - ✓ Switch Number/Fuse Size & Number

INFRARED SCAN and RFI CHECK

- Main Three-Phase Feeders (Risers & Switchgear)
- Priority URD Transformer Banks
 - ✓ Bushing Connectors Primary
 - ✓ Bushing Connectors Secondary
 - ✓ General Tank Heating

UNDERGROUND DISTRIBUTION INSPECTION FORM Date _____ Inspected by _____ Sub _____ Circuit _____

9

IX SUBSTATION - MONTHLY INSPECTION GUIDE

TRANSFORMER MAIN TANK:

- Oil in bushings
- Bushing and arrestor porcelain
 - ✓ Cracks or chips
 - ✓ Rust or dirt
- Oil leaks
 - ✓ Main tank
 - ✓ Sample valves
 - ✓ Radiators
- Radiator bank
 - ✓ warm on top, cool at bottom
- Tank pressure
- Tank oil level
- Temperature gauge
- Cooling fans

VOLTAGE REGULATORS:

- Tank oil level
- Drag hand positions
- Cabinet light
- Operation count
- Tank pressure
- Cabinet heater
- Cabinet contamination

FEEDER CIRCUIT BREAKERS / RECLOSERS

- OPEN/CLOSED indicator
- CHARGED/DISCHARGED indicator
- Cabinet light
- Cabinet heater
- Operations counter
- Bushings and supports
 - ✓ Cracks or chips
 - ✓ Rust or dirt
- Line and load side disconnect switches
 - ✓ Labeled properly
 - ✓ Aligned properly
 - ✓ Handles grounded
- Emergency trip button
- Oil level gauge
- Tank oil leaks
- Reset switch
- Cabinet contamination
- Vents clean

IX SUBSTATION - MONTHLY INSPECTION GUIDE (con't)

HIGH AND LOW VOLTAGE BUSS WORK:

- Bushing, insulator, arrestor, and support insulators
 - ✓ Chips or cracks
 - ✓ Rust or dirt
- Bird nests
- Potential transformers bushings
 - ✓ Cracks or chips
 - ✓ Rust or dirt
- Cable terminators
 - ✓ Leaking fluid
 - ✓ Cracks or chips

MANUAL SWITCHES:

- Properly labeled
- Ground connections
- Positioning and alignment
- Bushing and support insulators
 - ✓ Cracks or chips
 - ✓ Rust or dirt

CONTROL HOUSE/MISCELLANEOUS:

- Clock displays proper time
- AC/DC load center breakers
- Room temperature
- Rodents
- Panels labeled properly
- Panel lights
- Annunciator panel
- Panel meters
- SCADA system RTU
- SCADA alarms
- Position indicators agree
- Relay target information
- Emergency contact directory & dial tone for phone
- Safety Equipment

YARD AND FENCE:

- Fire extinguisher charged
- Fence ground connections
- Fence secured
- Security and emergency lights
- Site base and grade
- Standing water
- Warning signs

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: _____

DATE: _____

SUBSTATION: #1 -- NORTH WATER STREET

TRANSFORMER MAIN TANK		RATING: 0 1 2 3 4					(Circle One)
inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY			
Oil in Bushings							
Bushing and Arrestor							
Oil Leaks							
Main Tank							
Sample Valves							
Radiators							
Radiator Bank							
Tank Pressure							
Tank Oil Level							
Temperature Gauge							
Cooling Fans							

VOLTAGE REGULATORS		RATING: 0 1 2 3 4					(Circle One)
Tank Oil Level							
Drag Hand Positions							
Cabinet Light							
Operation Count							
Tank Pressure							
Cabinet Heater							
Cabinet Contamination							

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: _____

DATE: _____

SUBSTATION: #2 -- NORTH WATER STREET

TRANSFORMER MAIN TANK		RATING: 0 1 2 3 4					(Circle One)	
inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY				
Oil in Bushings								
Bushing and Arrestor								
Oil Leaks								
Main Tank								
Sample Valves								
Radiators								
Radiator Bank								
Tank Pressure								
Tank Oil Level								
Temperature Gauge								
Cooling Fans								

VOLTAGE REGULATORS		RATING: 0 1 2 3 4					(Circle One)	
Tank Oil Level								
Drag Hand Positions								
Cabinet Light								
Operation Count								
Tank Pressure								
Cabinet Heater								
Cabinet Contamination								

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: _____

DATE: _____

SUBSTATION: #3 -- MAPLE AVENUE

TRANSFORMER MAIN TANK		RATING: 0 1 2 3 4					(Circle One)
inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY			
Oil in Bushings							
Bushing and Arrestor							
Oil Leaks							
Main Tank							
Sample Valves							
Radiators							
Radiator Bank							
Tank Pressure							
Tank Oil Level							
Temperature Gauge							
Cooling Fans							

VOLTAGE REGULATORS		RATING: 0 1 2 3 4					(Circle One)
Tank Oil Level							
Drag Hand Positions							
Cabinet Light							
Operation Count							
Tank Pressure							
Cabinet Heater							
Cabinet Contamination							

COLUMBUS WATER & LIGHT

DATE:

RECLOSER:	RECLOSER 101
-----------	--------------

RATING: 0 1 2 3 4 (Circle One)

[illegible]

COLUMBUS WATER & LIGHT

DATE:

RECLOSER:	RECLOSER 102
-----------	--------------

RATING: 0 1 2 3 4 (Circle One)

[illegible]

COLUMBUS WATER & LIGHT

[illegible]

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: _____

DATE: _____

SUBSTATION:	#1 -- NORTH WATER STREET
-------------	--------------------------

RECLOSER:	RECLOSER 104
-----------	--------------

FEEDER CIRCUIT BREAKER / RECLOSER	RATING: 0	1	2	3	4	(Circle One)
--------------------------------------	-----------	---	---	---	---	--------------

FEEDER CIRCUIT BREAKER / RECLOSER	RATING: 0	1	2	3	4	(Circle One)
--------------------------------------	-----------	---	---	---	---	--------------

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
-----------	---	----------	-------------------	-----------------

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
-----------	---	----------	-------------------	-----------------

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
-----------	---	----------	-------------------	-----------------

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
-----------	---	----------	-------------------	-----------------

OPEN/CLOSED Indicator				
-----------------------	--	--	--	--

CHARGED/DISCHARGED Indicator				
------------------------------	--	--	--	--

Cabinet Light				
---------------	--	--	--	--

Cabinet Heater				
----------------	--	--	--	--

Operations Counter				
--------------------	--	--	--	--

Push to Trip Button (by foot)				
-------------------------------	--	--	--	--

Pul to Close Laynard				
----------------------	--	--	--	--

Pistol Grip (to open/trip or close)				
-------------------------------------	--	--	--	--

Cabinet Contamination				
-----------------------	--	--	--	--

Cabinet Contamination				
Vents Clean				

Vents Clean				

Amperage Reading A				
--------------------	--	--	--	--

Amperage Reading B			
--------------------	--	--	--

COLUMBUS WATER & LIGHT

[illegible]

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY:	
DATE:	
SUBSTATION:	#2 -- NORTH WATER STREET
RECLOSER:	RECLOSER 201

FEEDER CIRCUIT BREAKER / RECLOSER		RATING: 0 1 2 3 4 (Circle One)						
	inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY			
OPEN/CLOSED Indicator								
CHARGED/DISCHARGED Indicator								
Cabinet Heater								
Operations Counter								
Bushings and Supports								
Line and Load Side Disconnect Switches								
Emergency Trip Button								
Reset Switch (on control)								
Manual Closing Crank (top of recloser)								
Oil Level Gauge								
Tank Oil Level								
Cabinet Contamination								
Vents Clean								
Battery Test								
Battery Installation Date								
Amperage Reading A								
Amperage Reading B								
Amperage Reading C								
Drag Hand A								
Drag Hand B								
Drag Hand C								

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY:

DATE:

SUBSTATION: #2 -- NORTH WATER STREET

RECLOSER: RECLOSER 206

**FEEDER CIRCUIT BREAKER /
RECLOSER**

RATING: 0 1 2 3 4 (Circle One)

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
OPEN/CLOSED Indicator				
CHARGED/DISCHARGED Indicator				
Cabinet Heater				
Operations Counter				
Bushings and Supports				
Line and Load Side Disconnect Switches				
Emergency Trip Button				
Reset Switch (on control)				
Manual Closing Crank (top of recloser)				
Oil Level Gauge				
Tank Oil Level				
Cabinet Contamination				
Vents Clean				
Battery Test				
Battery Installation Date				
Amperage Reading A				
Amperage Reading B				
Amperage Reading C				
Drag Hand A				
Drag Hand B				
Drag Hand C				

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY:

DATE:

SUBSTATION: #3 -- MAPLE AVENUE

RECLOSER:	RECLOSER 301
-----------	--------------

[illegible]

MONTHLY SUBSTATION INSPECTION FORM	
INSPECTED BY:	
DATE:	
SUBSTATION:	#3 -- MAPLE AVENUE
RECLOSER:	RECLOSER 302

DATE:

RECLOSER:	RECLOSER 302
-----------	--------------

[illegible]

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: _____

DATE: _____

SUBSTATION: #3 -- MAPLE AVENUE

RECLOSER: RECLOSER 303

FEEDER CIRCUIT BREAKER / RECLOSER	RATING: 0	1	2	3	4	(Circle One)
--------------------------------------	-----------	---	---	---	---	--------------

FEEDER CIRCUIT BREAKER / RECLOSER	RATING: 0	1	2	3	4	(Circle One)
--------------------------------------	-----------	---	---	---	---	--------------

		COMMENTS	DATE CORRECTED	CORRECTED BY
inspected	X			

		COMMENTS	DATE CORRECTED	CORRECTED BY
inspected	X			

		COMMENTS	DATE CORRECTED	CORRECTED BY
inspected	X			

		COMMENTS	DATE CORRECTED	CORRECTED BY
inspected	X			

OPEN/CLOSED Indicator				
-----------------------	--	--	--	--

CHARGED/DISCHARGED Indicator				
------------------------------	--	--	--	--

Cabinet Heater				
----------------	--	--	--	--

Operations Counter				
--------------------	--	--	--	--

Bushings and Supports				
-----------------------	--	--	--	--

Line and Load Side Disconnect Switches				
--	--	--	--	--

Supervisory Switch				
--------------------	--	--	--	--

Manual Switch				
---------------	--	--	--	--

Cabinet Contamination				
-----------------------	--	--	--	--

Vents Clean				
-------------	--	--	--	--

Battery Test				
--------------	--	--	--	--

Battery Installation Date				
---------------------------	--	--	--	--

Amperage Reading A				
--------------------	--	--	--	--

Amperage Reading B				
--------------------	--	--	--	--

Amperage Reading C				
--------------------	--	--	--	--

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY:

DATE:

SUBSTATION: #1-- NORTH WATER STREET

HIGH & LOW VOLTAGE BUSS WORK

RATING: 0 1 2 3 4 (Circle One)

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
Bushing, Insulator, Arrestor, and Supports				
Bird Nests				
Transformer Bushings				
Cable Terminators				

MANUAL SWITCHES

RATING: 0 1 2 3 4 (Circle One)

Properly Labeled				
Ground Connections				
Positioning and Alignment				
Bushings and Supports				

COLUMBUS WATER & LIGHT MONTHLY SUBSTATION INSPECTION

INSPECTED BY:

DATE: _____

SUBSTATION: #2-- NORTH WATER STREET

HIGH & LOW VOLTAGE BUSS WORK

RATING: 0 1 2 3 4 (Circle One)

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
Bushing, Insulator, Arrestor, and Supports				
Bird Nests				
Transformer Bushings				
Cable Terminators				

MANUAL SWITCHES

RATING: 0 1 2 3 4 (Circle One)

[illegible]

COLUMBUS WATER & LIGHT

DATE:

SUBSTATION: #3 -- MAPLE AVENUE

[illegible]

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY:

DATE:

SUBSTATION: #1 -- NORTH WATER STREET

CONTROL HOUSE/MISCELLANEOUS

RATING: 0 1 2 3 4 (Circle One)

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
Room Temperature				
Rodents				
Panels Labeled Properly				
Panel Lights				
Annunciator Panel				
Panel Meters				
SCADA System RTU				
SCADA Alarms				
Position Indicators Agree				
Relay Target Information				
Safety Equipment				

YARD & FENCE

RATING: 0 1 2 3 4 (Circle One)

Fire Extinguisher Charged				
Fence Ground Connections				
Fence Secured				
Security and Emergency Lights				
Site Base and Grade				
Standing Water				
Hot Stick Canister				
Warning Signs				

COLUMBUS WATER & LIGHT

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY:

DATE:

SUBSTATION: #2 -- NORTH WATER STREET

CONTROL HOUSE/MISCELLANEOUS

RATING: 0 1 2 3 4 (Circle One)

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
Room Temperature				
Rodents				
Panels Labeled Properly				
Annunciator Panel				
Panel Meters				
SCADA System RTU				
SCADA Alarms				
Position Indicators Agree				
Safety Equipment				

YARD & FENCE

RATING: 0 1 2 3 4 (Circle One)

Fire Extinguisher Charged				
Fence Ground Connections				
Fence Secured				
Security and Emergency Lights				
Site Base and Grade				
Standing Water				
Hot Stick Canister				
Warning Signs				

COLUMBUS WATER & LIGHT

DATE:

SUBSTATION: #3 -- MAPLE AVENUE

RATING: 0 1 2 3 4 (Circle One)

RATING: 0 1 2 3 4 (Circle One)

[illegible]

RATING: 0 1 2 3 4 (Circle One)

RATING: 0 1 2 3 4 (Circle One)

[illegible]

X Substation - Annual Inspection Guide

- Check equipment for level
- Check condition of concrete pads
- Perform oil and DGA analysis
- Nameplate legible
- Equipment paint condition
- Proper equipment ID labels
- IR / RFI scans and checks

COLUMBUS WATER & LIGHT

Date _____

Inspected by

Substation: #1 -- NORTH WATER STREET

[illegible]

COLUMBUS WATER & LIGHT ANNUAL SUBSTATION INSPECTION FORM

Date _____ Inspected by _____ Substation: #2 -- NORTH WATER STREET

EQUIPMENT LISTING	SUBSTATION INSPECTION CRITERIA							COMMENTS	MAINTENANCE COMPLETED	
	Check equipment for level	Check condition of concrete pads	Perform oil and DGA analysis	Nameplate legible	Equipment paint condition	Proper identification labels	IR / RFI scans and checks		Date Item Corrected	Corrected By
Transformer										
Feeder CBs / Reclosers										
Switches										
Transmission line RFI										

COLUMBUS WATER & LIGHT ANNUAL SUBSTATION INSPECTION FORM

Date _____ Inspected by _____ Substation: #3 -- MAPLE AVENUE

EQUIPMENT LISTING	SUBSTATION INSPECTION CRITERIA							COMMENTS	MAINTENANCE COMPLETED	
	Check equipment for level	Check condition of concrete pads	Perform oil and DGA analysis	Nameplate legible	Equipment paint condition	Proper identification labels	IR / RFI scans and checks		Date Item Corrected	Corrected By
Transformer										
Feeder CBs / Reclosers										
Switches										
Transmission line RFI										